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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,190	08/23/2006	Johann Wiesmüller	0091-0004	9506
26568	7590	01/13/2009	EXAMINER	
COOK ALEX LTD SUITE 2850 200 WEST ADAMS STREET CHICAGO, IL 60606			GWARTNEY, ELIZABETH A	
			ART UNIT	PAPER NUMBER
			1794	
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			01/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,190

Applicant(s)

WIESMULLER, JOHANN

Examiner

Elizabeth Gwartney

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date 20060823
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

-The word "loading" appears to be a typographical error and should read "loaded".

Appropriate correction is required.

-The phrase "specific surface" appears to be missing a word. Does applicant mean "specific surface area?"

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 12, the recitation of "[m]ethod for flavoring drinks" renders the claim indefinite. Since the claim does not set forth any steps involved in the method, it is unclear what method applicant is intending to encompass.

Regarding claim 17, the recitation that "the flavouring agents are essential oils, citrus oils, citrus essences and flavour extracts" renders the claim indefinite because it is not clear how the flavor agent can meet all of the claimed limitations as one time. To further prosecution, the claim will be interpreted as reciting a Markush group where the claim recites the limitations as alternatives. A Markush-type claim recites alternatives in a format such as "selected from the

group consisting of A, B and C.” *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1925). (See MPEP 803.2).

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by “such as” and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance;

- claim 1 recites the broad recitation “specific surface between 0.1 and 1000 m²/g”, and the claim also recites “preferably of 50 to 500 m²/g” which is the narrower statement of the range/limitation.

- claim 16 recites the broad recitation “readily volatile flavouring agents”, and the claim also recites “preferably of natural origin” which is the narrower statement of the range/limitation.

- claim 18 recites the broad recitation “aqueous infusion or extraction drinks”, and the claim also recites “preferably to teas” which is the narrower statement of the range/limitation.

- claims 21-22 recite the broad recitation " from the flavour industry" and the claim also recites "preferably flavor extraction, flavour preparation and/or flavour processing" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12, 14-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lou et al. (US 6,235,274) as evidenced by EVONIK Industries ("Product Information - SIPERNAT[®] D17").

Regarding claims 12 and 14-15, Lou et al. disclose microparticles comprising a flavor composition or flavor component adsorbed onto silica powder (Abstract, *see* SIPERNAT[®] D17-C8/L22-24/Example II, C3/L29-25). Given that Lou et al. disclose a silica gel, SIPERNAT[®] D17, it is clear that the silica gel would inherently have a specific surface area between 0.1 and 1000 m²/g (*see* 100 m²/g- as evidenced by EVONIK Industries at C2), a particle size of greater than or equal to 10 µm (*see* 10 µm - as evidenced by EVONIK Industries, C1/Particle size (d50), C2), and a pore size between 0.3 and 5000 nm.

Regarding claim 16, Lou et al. disclose all of the claim limitations as set forth above. Given that Lou et al. disclose an olfactory sense effecting composition (C5/L53-54), it is clear that the composition would inherently be readily volatile.

Regarding claim 19, Lou et al. disclose all of the claim limitations as set forth above. Given that Lou et al. disclose Lou et al. disclose that the flavor component is adsorbed onto the silica by means of conveyance including using a fluidized bed plating apparatus (C4/L12-16) would necessarily inherently involve introducing the carrier particles into liquid flavoring agents.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 17-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lou et al. (US 6,235,274) as evidenced by EVONIK Industries "Product Information - SIPERNAT® D17").

Regarding claim 17, Lou et al. disclose all of the claim limitations as set forth above. Given that Lou et al. disclose the use of a flavor component broadly (C3/L29-30), it would have

been obvious to one of ordinary skill in the art to have used any flavor component, including essential oils, citrus oils, fruit essences or flavor extracts, and arrive at the current invention.³

Regarding claim 18, Lou et al. disclose all of the claim limitations as set forth above. Given that Lou et al. adding flavored silica particles to beverages (C3/L65-C4/L3), it would have been obvious to one of ordinary skill in the art at the time of the invention to have added the flavored silica particles to any beverage including aqueous infusion or extraction drinks, and arrive at the current invention.

Regarding claim 20, Lou et al. disclose all of the claim limitations as set forth above. While Lou et al. disclose that the flavor component is adsorbed onto the silica by means of conveyance including using a fluidized bed plating apparatus (C4/L12-16), the reference does not explicitly disclose that the flavor component is adsorbed onto the silica by spraying.

Given that Lou et al. disclose a flavor composition broadly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used any form of a flavor composition, including a liquid form, and arrive at the current invention. Further, given that Lou et al. disclose adsorbing a flavor composition onto silica via conveyance, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used any method of conveyance including spraying, and arrive at the current invention.

Regarding claims 21-22, Lou et al. disclose all of the claim limitations as set forth above. Given that Lou et al. disclose a flavor composition broadly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used any form of a flavor composition, including a liquid form, and arrive at the current invention. Further, given a liquid

flavoring composition, it is clear that it would intrinsically be process water from the flavor industry.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lou et al. (US 6,235,274) as evidenced by EVONIK Industries ("Product Information - SIPERNAT® D17") and further in view of Wason ("Silica Gels").

Regarding claim 13, Lou et al. disclose all of the claim limitations as set forth above but the reference fails to disclose that the silicates are silica gels.

Wason teach that silica gels, like other synthetic silicas are amorphous products (p. 175/C1/P1). Wason teaches that the controlled pore structure, pore volume and surface area of silica gels offer better performance than the precipitated silicas as adsorbents (p.180/C2/P1). Further, Wason teaches that silica gels have a surface area between 250 and 900 m²/g (p.178/Table 1), an average pore diameter ranging from 14-1000 angstroms (i.e. 1.4 - 100 nm – p.178/Table 1) and an average particle size ranging from 2 to 15 µm (p.179/Table 3).

Lou et al. and Wason are combinable because they are concerned with the same field of endeavor, namely, silica compositions. It would have been obvious to one of ordinary skill in the art at the time of the invention to have replaced the silica powder (i.e. silica precipitate) of Lou et al. with a silica gel, as taught by Wason, because silica gels perform better than silica precipitates as adsorbents.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ***Kuraray Chem. Co. LTD.*** (JP 04 341165 - Derwent Abstract) teaches adsorbing flavor to active carbon integrated into a sheet used for a tea bag. The flavor is released when hot water is poured over the tea bag. Kuraray Chem. Co. LTD does not teach flavoring agents in liquid form.

- ***Hantsche et al.*** (DD 268150- Derwent Abstract) teaches a process for preserving the aroma of ground roast coffee by adsorbing coffee vapor onto silica gel. The reference does not teach a liquid flavor composition.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gwartney whose telephone number is (571) 270-3874. The examiner can normally be reached on Monday - Thursday; 7:30AM - 5:00PM EST, working alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794